Before the
Federal Communications Commission
Washington, DC 20554

In the matter of	)	
	)	
Amendment of Part 97 of the Commission's Rules	)	
Governing the Amateur Radio Service Concerning	)	RM-11306
Permitted Emissions and Control Requirements	)	
	)	

Comment of Robert G. Rightsell, AE4FA

INTRODUCTION

As an amateur radio operator first licensed in 1963, I have serious concerns about the actions proposed in RM-11306 filed by the ARRL. I am a long-term member of this organization who believes it to be in foul territory in terms of both the goals of this petition and the way in which it was developed.

DISCUSSION

1. This proposal was developed by the ARRL's Ad Hoc Digital Committee, which was chartered to advise the Board of Directors on the status of amateur digital communications and to make recommendations for further development. It was specifically not chartered to craft a new scheme of amateur band segmentation.

Two members of this committee, Victor Poor (the committee chairman) and Steve Waterman, were affiliated with WinLink[1], an organization which developed a system of e-mail over amateur radio utilizing PacTOR. According to its final report, the committee was *"charged specifically with recommending how voice-bandwidth data modes should be introduced (Task 1), what changes if any are required to the FCC rules Section 97.219 with respect to interconnecting Internet with amateur radio digital operation (Task 2), and what changes if any are required to the FCC rules Section 97.221 with regard to automatic operation on HF (Task 3)."* Note that the committee's charge specifically did not include development of a whole new scheme of amateur band segmentation.

Nonetheless, that is exactly what it produced. It was adopted by the ARRL Board, which announced in August of 2004 its intention to file a Petition for Rulemaking based on the committee report[2]. This touched off a firestorm in the amateur community. The ARRL Board was forced to retreat and regroup. As a result, they issued a call for comments from

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[1] www.winlink.org
[2] www.arrl.org/announce/reports-0307/hf-digital.html

members. After some time passed, and with only miniscule changes which satisfied none of the proposal's critics, the Board once again proceeded to announce it would file a petition, which it did in late 2005.

It is important to note at this point that two members of the ad hoc committee were aghast at what would be in the final report. One, Peter Martinez, G3PLX, resigned in disgust prior to its publication. Another, Howard Teller, KH6TY (the developer of DigiPan software for PSK), filed a minority report which was squelched by the ARRL, thus denying its membership (currently only about 20% of US amateurs) the benefit of significant information on the subject.

Also note that the committee included only digital enthusiasts, no amateurs who use and experiment with the wide variety of other modes available. Certainly this total exclusion of all others was a slap in the face to the vast majority of US licensees, since the most generous estimates of digital usage places it at only ten percent (10%) on the amateur HF bands.

2. The primary thrust, and the very heart, of this petition is to allow 'voice bandwidth digital modes' free reign over major portions of the HF amateur radio bands. The chief beneficiary of this proposal is WinLink, which as noted above, is a store-and-forward e-mail system directed to those in the sailing and RV communities.

One significant consideration is whether this sort of operation is even legal under FCC regulations. Referring to the Commission's rules, we see:

> *"Sec. 97.113 Prohibited transmissions."*
>
> *"(a) No amateur station shall transmit:"*
> *"(5) Communications, on a regular basis, which could reasonably be furnished alternatively through other radio services."*

It becomes necessary to examine some of the terms used in this regulation. For instance, how does the Commission determine what constitutes "*on a regular basis*?"

> Does living (whether permanently or for temporary, but extended, periods) on a sailboat or in an RV and routinely using e-mail over amateur radio to communicate with family or a stockbroker while doing so constitute usage on a regular basis?
>
> Does exchanging e-mail with one individual or even a small group of people routinely constitute usage on a regular basis?
>
> Does it matter at all that, in most cases, only one party to any of these exchanges has an amateur license?
>
> How are existing third party traffic rules enforced in these e-mail exchanges?

Also, how does the Commission determine which communications *"could reasonably be furnished alternatively through other radio services*?*"* I suppose the first step would be to examine exactly what alternate radio services exist for this purpose.

> SailMail[3] offers cruising and sailing populations e-mail service for two-hundred-fifty dollars ($250) per year. That's less than twenty-one dollars ($21) per month, about the same as many home dial-up users pay. Can that be considered reasonable access "*through other radio services*?"
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> There are also BushMail,[4] CruiseEmail,[5] and a significant number of other choices with varying plans – including full Internet access.

In considering this petition, the Commission must first determine whether its primary, and perhaps only, beneficiaries are already in violation of our regulations. Only after finding in their favor should the Commission move on to the other issues. If the Commission finds they are, or would become, in violation, it is obligated to deny the petition it its entirety with no further consideration – and to publish that finding in a declaratory ruling.

3. Amateur radio operators from several other nations have already commented on this petition, and I suspect (and hope) there will be more. It may not be the first time that is has happened, but it certainly is not the norm. These commenters underscore the worldwide implications of what this petition seeks to do, and should not be discounted. Amateur radio is, after all, a worldwide activity on the HF bands. Therefore, the Commission must not approach this matter in the belief that it affects only US amateurs. As the one nation with the largest amateur population in the world, what we do here impacts every amateur in every nation.

4. The ARRL, in the introduction, states in its petition, *"The rule changes proposed in this Petition would comprehensively modify the means by which the extremely varied emission modes in the Amateur Radio Service are developed, experimented with, implemented, and regularly utilized in the course of normal Amateur Radio communications. In short, the Petition proposes Amateur band segmentation not by emission types, but by bandwidth maxima. This petition seeks for the Amateur Radio Service the flexibility to experiment with new digital transmission methods and types to be developed in the future, while permitting present operating modes to continue to be used for as long as there are radio amateurs who wish to use them."* The implication being that current rules hamper this activity. Sadly, but not unexpectedly, not one example of how the current rules do not provide sufficient flexibility is offered. Conjecture and hyperbole have become the hallmarks of ARRL petitions in recent years, and this one is no different.

5. In Section 1(2)(a) (of the "*key principles*"), the ARRL states *"The rule changes to be implemented must withstand the test of time over the next ten years, if not longer."* I could

[3] www.sailmail.com
[4] www.bushmail.co.za/
[5] www.cruiseemail.com

not agree more. However, it is a significant indicator of how well ARRL proposals have been thought through before being filed in recent years that NPRM 04-140, produced on the basis of an ARRL petition, has not even reached a final Commission decision before they are back asking for something else.

6. In Section 1(2)(b), the petition says, *"We are in the early stages of a dramatic shift in Amateur operating patterns, especially in the High Frequency (HF) bands."* Where is the evidence of this? As noted earlier, the most generous estimates of digital usage in the amateur bands places it at about ten percent (10%). This figure has remained static for at least the last five years. Perhaps the prudent thing would be to simply wait and observe.

7. Following the sentence referenced above, the petition says, *"It is impossible to determine now where this shift may lead. The Commission's Rules should not stand in the way of where technology takes Amateur Radio in its fulfillment of the bases and purposes of the Amateur Radio Service (47 C.F.R. 997.1)."* Again, lacking some credible documentation of exactly how existing regulations have stood in the way of any experimentation and development – or even a demonstration of how they possibly could, this is mere conjecture and hyperbole. Hardly the basis for a rulemaking proceeding.

8. Finally, in the statement of "*key principles*," (1(2)(c)), the ARRL proclaims, *"The Commission's rules alone cannot, and should not be expected to effectively prevent conflicts in HF spectrum usage between Amateurs pursuing different operating interests on-air. Responsibility for resolving conflicts in shared spectrum must be shouldered by the Amateur community itself. Voluntary band planning must be adequate and must gain broad acceptance by amateurs as the best means of protecting their individual interests."*

An admirable goal, to be sure, but lacking some plan to achieve it. Consider the Region 1 experience. The following comes from the RSGB, Improving Bandplan Compliance, paper number 138: *"An increasing proportion of the Amateur Radio community is using non-CW modes and deploying beacons within the CW communication sub-bands. National societies could do more to improve compliance with IARU bandplans. Note: The authors believe that the degree of compliance within the CW sub-bands in particular is indicative of the respect for IARU bandplans in general. The IARU Region 1 HF Bandplan has served the amateur community very well for many years, and has always been made available by the IARU member societies through a range of printed publications and internet resources. However, in recent years, it has been observed that an increasing number of Amateur Radio operators can be heard operating data and telephony modes as well as beacons that transmit position and propagation data within the CW communication subbands. Non-Morse stations within the CW sub-bands are getting more aggressive and more confident, believing that they are "entitled" to do what they do."*

One might summarize that section of the report by saying that, especially in recent years, all too many amateurs often mistake the concepts of privileges and rights. This does not bode well for any voluntary plan in the future, and provides another sound reason to maintain the current regulations, as they are quite adequate for the needs of the US amateur community.

Also, note that as of today – almost two years after ARRL first contemplated filing this petition – it has still not published any proposed voluntary bandplan that would be *'adequate,'* and *'gain broad acceptance by amateurs.'* Once again, ARRL leadership has put the cart before the horse.

9. Finally, we return to WinLink, whose developers were handed control of the ARRL's ad hoc digital committee, and the way in which the petition discriminates between automatic digital forwarding systems (Packet) and semi-automatic digital forwarding systems (WinLink). It proposes to retain regulations keeping the packet network stations in small sections of the bands, while seeking to allow WinLink stations to roam major portions of the bands at will.

This proposal ignores the very thing that makes amateur worldwide communication possible, propagation. Propagation is never constant nor uniform. That is, a pair of stations in Florida and Illinois might be conducting a contact on one frequency, while another pair of stations in New York and Arizona also conduct operations on the very same frequency, yet with neither pair hearing or interfering with the other.

Suppose that during the period these two pairs are in contact, a station in Oregon hears neither contact on that frequency and decides it is an opportune time to pass e-mail via WinLink. The Oregon station sends an inquiry to a WinLink robot (semi-automatic station) in Missouri. A human operator at the Missouri station would hear both conversations and realize the frequency is busy, but the robot only listens for other WinLink stations. It fires up in response to the query and the contacts between the Florida/Illinois and New York/Arizona pairs of amateurs are destroyed by a voice bandwidth, one hundred percent duty cycle blast of digital transmission.

The simplest and best way to avoid this is to confine both automatic and semi-automatic systems to the small allocations currently provided for automatic control stations. This is truly the only change in rules needed at this time.

CONCLUSION

The Commission should reject the ARRL petition in its entirety and revise the regulations slightly to confine semi-automatically controlled stations to small, segregated, sections of the HF bands.

Sincerely,

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Submitted and signed electronically via ECFS